DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES OFFICE ENGINEER 1727 30th Street MS-43 P.O. BOX 168041 SACRAMENTO, CA 95816-8041 FAX (916) 227-6214 www.dot.ca.gov/hg/esc/oe



Flex your power! Be energy efficient!

April 3, 2014

04-SCI-152-0.1/5.2 04-2A2504 Project ID 0400000813 HSSTP-S152(080)E

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SANTA CLARA COUNTY NEAR GILROY AT VARIOUS LOCATIONS FROM 0.2 MILE NORTH OF BELLA VISTA LANE TO 0.2 MILE EAST OF WATSONVILLE ROAD.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Tuesday, April 29, 2014.

This addendum is being issued to revise the project plans, the *Notice to Bidders and Special Provisions*, the *Bid* book and *Information Handout*.

Project plan sheets 13, 14, 18, 19, 20, 21, 22, 23, 24, 25, 26, 42, 113, 114, 119, 121, 149, 150, 151, 154, 155, 156, 157, 173, 174, 175, 176, 188, 190, 192, 193, 194, 199, 200, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 218, 219, 221, 222, 228, and 229 are replaced and attached for substitution for the like-numbered sheets.

Project plan sheets 189A, 416A, 416B, 416C, 416D, 416E, 416F, 416G, and 416H are added and attached for addition to the project plans.

Project plan sheets 167, 168, 177, 195, 196, 197, and 198 are deleted.

In the Notice to Bidders, the twelfth paragraph is replaced as follows:

"Complete the work within 500 working days."

In the Special Provisions, Section 1-1.01, "GENERAL," is replaced as attached.

In the Special Provisions, Section 1-1.07B, "GENERAL," is added as follows:

"Delete item 2.1 in the definition of "day" in the RSS for section 1-1.07B."

In the Special Provisions, Section 2-1.06B, "BIDDING," is replaced as attached.

In the Special Provisions, Section 5-1.20D, "CONTROL OF WORK," is deleted.

In the Special Provisions, Section 5-1.36D, "CONTROL OF WORK," is added as attached.

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In the Special Provisions, Section 6-2.03, "CONTROL OF MATERIALS," the first paragraph is replaced as follows:

"The Department furnishes you with:

- Loop detector sensor units
- Model 2070E controller assemblies, including controller units, completely wired controller cabinets, and detector sensor units
- Model 2070E controller unit."

In the Special Provisions, Section 8-1.04C, "PROSECUTION AND PROGRESS," the second paragraph is replaced as follows:

"Start job site activities within 15 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department."

In the Special Provisions, Section 8-1.04C, "PROSECUTION AND PROGRESS," the sixth paragraph is replaced as follows:

"You may start job site activities before the 15th day after Contract approval if you:

- 1. Obtain specified authorization or acceptance for each submittal before the 15th day
- 2. Receive authorization to start."

In the Special Provisions, Section 9-1.16C, "PAYMENT," is replaced as attached.

In the Special Provisions, Section 12-3.16A, "General," the first paragraph is replaced as follows:

"Section 12-3.16 includes specifications for temporary signal system (TSS). TSS includes installing and maintaining and removing temporary traffic signal, lighting, flashing beacons for traffic control, and temporary chain link fence and gate."

In the Special Provisions, Section 13-1.03E, is added as attached.

In the Special Provisions, Section 13-3.01A, is replaced as attached.

In the Special Provisions, Section 13-6.03H, is deleted.

In the Special Provisions, Section 14-1.02A, is replaced as attached.

In the Special Provisions, Section 14-6.02C(4), is replaced as attached.

In the Special Provisions, Section 39-1.12, is added as attached.

In the Special Provisions, Section 39-1.17, is added as attached.

In the Special Provisions, Section 46-3.03A, is replaced as attached.

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In the Special Provisions, Section 48-6, is added as attached.

In the Special Provisions, Section 49-1.03, is added as attached.

In the Special Provisions, Section 49-4.03B, is added as attached.

In the Special Provisions, Section 51-1.021, is added as attached.

In the Special Provisions, Section 57-2.02B, is added as attached.

In the Special Provisions, Section 59-2.01A, is added as attached.

In the Special Provisions, Section 59-2.01C(2), is added as attached.

In the Special Provisions, Section 59-9.01, is added as attached.

In the Special Provisions, Section 59-11.02, is replaced as attached.

In the Special Provisions, Section 80-7, is added as attached.

In the Special Provisions, Section 83-2.02D(1), is added as attached.

The Supplemental Information Handout is added as attached.

In the *Bid* book, in the "Bid Item List," Items 3, 6, 8, 11, 15, 17, 34, 37, 38, 43, 49, 66, 67, 68, 76, 79, 80, 82, 104, 109, 110, 117, and 122 are replaced, Items 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, and 143 are added and Items 7, 9, 29, 74, 116, and 125 are deleted as attached.

To Bid book holders:

In the *Bid* book, pages 3, 4, 5, 6, 7, 8, 9 and 9A of the "Bid Item List" are replaced as attached. The attached Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the *Notice to Bidders* section of the *Notice to Bidders and Special Provisions*.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the *Bid* book.

Submit bids in the *Bid* book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This addendum, attachments and the modified wage rates are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-2A2504

If you are not a *Bid* book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

MOHSEN SULTAN

Chief, Office of Plans, Specifications & Estimates

Office Engineer

Division of Engineering Services

Attachments

Add to section 1-1.01:

Bid Items and Applicable Sections

Item code	Item description	Applicable section
026336	TEMPORARY SIGNAL SYSTEM (LOCATION 1)	12
026337	TEMPORARY SIGNAL SYSTEM (LOCATION 2)	12
026338	TEMPORARY SIGNAL SYSTEM (LOCATION 4) (STAGES 1 AND 2)	12
026339	TEMPORARY SIGNAL SYSTEM (LOCATION 4), (STAGES 3 AND 4)	12
026340	TEMPORARY CRASH CUSHION MODULE (ABSORB 350 TL2)	12
026341	RESET TEMPORARY CRASH CUSHION MODULE	15
026342	CENTERLINE RUMBLE STRIP (HMA, GROUND-IN INDENTATION)	39
044447	SCULPTED SHOTCRETE	53
026343	STAINING GALVANIZED SURFACES	53
044448	PREPARE AND STAIN SCULPTED SHOTCRETE	59
044449	MISCELLANEOUS METAL (SAFETY HOOKUP)	75
044450	CONCRETE BARRIER (TYPE 60D MODIFIED)	83
026344	CONCRETE BARRIER (TYPE 60C MODIFIED)	83
026345	MODIFY VARIABLE MESSAGE SIGN	86
027319	TEMPORARY SIGNAL SYSTEM (LOCATION 3)	12
027320	TEMPORARY FENCE (TYPE FROG)	80

Add to section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description		
	The state of the s		
Included in the <i>Information Handout</i>	USFWS Biological Opinion File No. 81420-2009-F- 1058-2 USFWS Amended Biological Opinion File No. 81420-		
	2009-F-1058-R001		
	USACE Nationwide 404 Permit		
	RWQCB 401 Permit, dated January 8, 2014		
	California Department of Fish and Wildlife Lake or		
	Streambed Alteration Agreement No. 1600-2012-0208-R3, dated April 12, 2013		
	National Marine Fisheries Service Concurrence Letter No. SWR-2012-4877, dated March 13, 2013		
	National Marine Fisheries Services letter. Endangered		
	Species, dated February 24, 2014.		
	2010 Final Environmental Impact Report/Environmental Assessment		
	Addendum to Final Environmental Impact Report Alternative In-Line Terminal System		
	Foundation Report for the Nine Proposed Soil Nail		
	Walls, dated March 6, 2012		
	Foundation Report for the Proposed Steel Soldier Pile Wall, dated August 21, 2013		
Available as specified in the Standard Specifications	Cross sections		
Included with the project plans	Log Test of Boring		

Add to section 5-1.36D:

The utility owner will relocate a utility shown in the following table before the corresponding date shown:

Utility Relocation and Date of the Relocation

Utility	Location	Date	
Verizon	Location 5 from Sta 250+00 to Sta 275+00	May 30, 2014	

Installation of the utilities shown in the following table requires coordination with your activities. Make the necessary arrangements with the utility company through the Engineer and submit a schedule:

1. Verified by a representative of the utility company

2. Allowing at least the time shown for the utility owner to complete its work

Utility Relocation and Contractor-Arranged Time for the Relocation

Utility	Utility address	Location	Days
Verizon	15 Montebellow Way,	Location 4 from Sta	30
	Los Gatos, CA 95030	132+00 to Sta 172+50	

Add to section 9-1.16C:

The following items are eligible for progress payment even if they are not incorporated into the work:

- 1. Soil Nail
- 2. Bar Reinforcing Steel
- 3. Alternative Pipe Culvert
- 4. Corrugated Steel Pipe
- 5. Corrugated Steel Pipe Arch
- 6. Grated Line Drain
- 7. Alternative Flared End Section
- 8. Steel Flared End Pipe Arch Section
- 9. Precast Concrete Pipe Inlet
- 10. Miscellaneous Drainage Facilities
- 11. Miscellaneous Iron and Steel
- 12. Railings
- 13. Alternative In-Line Terminal System
- 14. Pavement Markers
- 15. Piling (except CIDH Concrete Piling)
- 16. Timber
- 17. Miscellaneous Metal

Add to section 13-1.03:

13-1.03E Construction Activity, Work Window and, Rain Event

Do not perform construction activities in project locations 1, 2, 3, and 4 during rain events. Implement effective erosion control, sediment control, and other protective measures before the start of any rain event.

Do not perform construction activities in project locations 1, 2, 3, 4, and 5 on any day for which the National Weather Service has predicted a 25 percent or more chance of at least 0.1 inch rain in 24 hours between October 1 and May 30. Install effective erosion control, sediment control, and other protective measures no later than the day before the predicted rain event in preparation for any such predicted rain event between October 1 and May 30.

Construction activities can be resumed after the rain has ceased, the National Weather Service predicts clear weather, and site conditions are dry enough to continue work without discharge of sediment or other pollutants from the job site.

Add to section 13-3.01A:

The project is risk level 3.

Comply with the permit issued by the Central Coast (Region-3) RWQCB for *National Pollutant Discharge Elimination System (NPDES) Permit, Permit No. 34313WQ06.*" The Central Coast (Region-3) RWQCB permit governs stormwater and nonstormwater discharges resulting from construction activities in the project area. The Central Coast (Region-3) RWQCB permit may be viewed at http://www.waterboards.ca.gov/water_boards.shtml.

Add to section 14-1.02A:

An ESA exists on this project.

Take the management measures shown in the following table for the corresponding ESA shown. Any access to an ESA other than that shown is prohibited.

ESA Management

ESA Management Management							
Identification	Location	Management measures					
Biological and Cultural ESA	Biological ESA: Entire extent along all project locations 6 feet beyond the cut/fill line adjacent to wall construction, otherwise 5 feet beyond the cut/fill line (away from SR 152).	The Biological and Cultural ESA will be demarcated by installing Temporary Fence (Type Frog). Notify the Engineer 10 working days prior to fence installation.					
	Cultural ESA: Shares the Biological ESA at Location #5 Santa Clara / SR 152 South Side, East Bound/ PM 4.73- 5.19 Rofinella Winery 4390 Hecker Pass Rd. Gilroy, CA						
Cultural ESA #1	Location 4 Santa Clara / SR 152 Eastbound and Westbound / PM 2.3-2.37 (Sta 121+50 to Sta 125+00)	Before start of work, the Engineer and Cultural will delineate the ESA with orange marking paint and traffic cones along edge of pavement extending to Caltrans right of way. The Engineer must be notified 10 working days prior to start of work.					
		No project related activities may occur within the ESA.					
Cultural ESA #2	Location 4 Santa Clara / SR 152 Westbound / PM 2.45-2.5 (STA 129+36 to STA 132+00)	Before start of work, the Engineer and Cultural will delineate the ESA with orange marking paint and traffic cones starting 2 feet from the outermost edge of shoulder on the east side (westbound direction) of the road and extending to Caltrans right of way. The Engineer must be notified 10 working days prior to start of work. No project related activities may occur within the ESA.					

14-6.02C(4) Protection Measures

Within Species Protection Area 1, implement the following protection measures:

- 1. Upon the day of removal, furnish the tags of felled trees to the Engineer. Report all untagged trees planned for removal to the Engineer on the day of removal.
- 2. Immediately report any information about take or suspected take of listed wildlife species not authorized in the biological opinion to the Engineer.
- 3. Immediately report to the Engineer any observations of listed or sensitive plant and animal species.
- 4. Restrict all downslope tree removal adjacent to the eastbound lane of SR-152 between June 16 and October 15 of each year.
- 5. If tree removal occurs in areas upslope of the westbound lane of SR-152 between October 16 and April 14:
 - Cut trees only within the impact footprint of proposed subsequent construction activities and immediately preceding planned construction activities.
 - Minimize ground disturbance by restricting equipment to paved surfaces, except where ground must be
 disturbed to place crane outriggers. Cut trees and large vegetation no more than 4 inches above the
 ground and use a crane or other fixed rigging to lower cut limbs and trunk sections to paved surfaces. Do'
 not drag limbs or trunk sections along the ground.
 - Do not conduct tree removal during the rainy season on any day for which the National Weather Service has predicted a 25% or more chance of at least 0.1 inch rain in 24 hours. In preparation for any such predicted rain event, install effective erosion control, sediment control, and other protective measures no later than the day prior to the predicted rain event
 - Submit requests for approval of advance tree removal in writing at least 60 days prior to the beginning of each session of proposed tree and large vegetation removal work and include the following information, at a minimum: a) plans identifying the area proposed for advance tree removal activities and the trees and large vegetation proposed to be removed; b) a description of procedures that will be followed in conducting the proposed activities; c) the beginning and end dates of the proposed activities; d) a historical rainfall record indicating the likelihood of rainfall events exceeding 0.1 inch per day during the period between the beginning and end dates of the proposed activities; e) a water pollution control plan indicating erosion and sediment control measures that will be implemented; and f) photographs of the proposed work area
- 6. If an arborist determines that trees within the Biological ESA will incur or have incurred sufficient damage to roots to lead to mortality; or limbs on trees within Biological ESA overhang the work area and impede construction, immediately notify the Engineer before tree and limb removal.
- 7. Before working at the job site between December 1 and August 31, notify the Engineer 15 days before the start of work to allow the Department to conduct burrowing owl surveys.
- 8. Notify the Engineer 15 days prior to the start of work to allow the Department to conduct San Francisco Dusky-Footed Woodrat surveys.
- 9. Notify the Engineer 15 work days prior to the start of work to allow the Department to conduct Western pond turtle surveys.
- 10. Conduct work from April 15 through October 14 except for limited vegetation clearing, re-vegetation, and roadway work confined to the pavement.
- 11. Notify the Engineer 15 days before any work at the job site to allow the Department to conduct daily California red-legged frog surveys and to monitor vegetation removal.
- 12. Cover all excavated, steep-walled holes or trenches more than one-foot deep at the end of each working day with plywood or similar materials as approved by the Engineer, or provide with one or more escape ramps constructed of earth fill or wooden planks. Before holes or trenches are filled, inspect for trapped animals. Inspect all pipes, culverts, or similar structures stored on the job site before they are moved, capped and/or buried.
- 13. Implement effective inlet protection at all storm drain inlets. In project locations 1, 2, 3, and 4, implement effective inlet protection at all locations, such as culverts, where stormwater runoff is able to cross State Highway 152 and enter Bodfish Creek.

- 14. Do not stockpile or refuel equipment within 50 feet of Bodfish Creek, Blackhawk Creek and the unnamed tributary of Bodfish Creek. Do not stockpile or refuel equipment at the Sprig Lake parking lot and trailhead.
- 15. Conduct work within new and existing drainages only between June 16 and October 14 of each year.
- 16. Conduct construction of the soldier pile wall at location 4 only between June 16 and October 14.
- 17. Do not work when more than 0.25-inch of precipitation is forecasted according to National Weather Service weather forecasts. Following any precipitation event, work will begin only after runoff ceases and there is a 30% or lesser chance of precipitation for the following 24-hour period.
- 18. Notify the Engineer of the start and stop dates of construction, at least 10 days prior to the initiation of construction so that the Department can inform US Army Corps of these dates per the 404 permit.
- 19. Remove temporary fills in their entirety and return the affected areas to pre-construction elevations per the 404 permit.
- 20. The PLACS (permits, licenses and certifications) cover only the work areas shown in the project footprint as depicted on the plans. If any ground-disturbing activity is performed, including creating any access, staging, storage or parking areas not shown on the plans that relate solely to the project, the Department may need to amend the project PLACS and obtain approval from the U.S. Fish and Wildlife Service (USFWS). When you identify the need for ground-disturbing activity described above, meet with the Engineer to discuss the purpose and need for the activity and documentation and fees required for amendments and the USFWS submittal. If the Department determines the need to amend the project PLACS or obtain USFWS approval, submit the following documentation as an action submittal within 55 days of Contract approval:
 - 1. Description of the work to be done outside the project footprint
 - 2. Plans and details showing the work area outside the project footprint
 - 3. Botanical surveys of the affected area outside the project footprint
 - 4. California red-legged frog surveys of the affected area outside outside the project footprint
 - 5. Additional documents required for amendment and USFWS approval
 - 6. Fees required for submitting the request for PLAC amendment and for obtaining USFWS approval

Allow 45 days for submittal review. After submittal approval, allow 180 days for the Department to receive approval or rejection by USFWS and of the PLAC amendments. If the ground-disturbing activity is identified after the 55-day period has passed, notify the Engineer immediately and provide the documentation as soon as possible.

Replace the headings and paragraphs in section 39-1.12 with:

39-1.12A General

Section 39-1.12 includes specifications for measuring pavement smoothness with an inertial profiler (IP) and straightedge, analyzing the data with FHWA's engineering software ProVAL, and correcting deficient smoothness.

The RSS for sections 39-1.12 and 39-1.12C do not apply.

Test pavement smoothness using an IP except use a 12-foot straightedge at the following locations:

- 1. Traffic lanes less than 1,000 feet in length including ramps, turn lanes, and acceleration and deceleration lanes
- 2. HMA pavement within 3 feet from and parallel to the construction joint formed between curbs, gutters, or existing pavement
- 3. Areas within 15 feet of manholes
- 4. Shoulders
- 5. Weigh-in-motion areas
- 6. Miscellaneous areas such as medians, gore areas, turnouts, and maintenance pullouts

Where IP testing is required, pavement smoothness for each lane must be determined by the international roughness index (IRI) for the left and right wheel paths in an individual lane and then averaging the results. The average of the IRIs from the left and right wheel paths for the same lane is the mean roughness index (MRI) of the lane. The wheel paths are a pair of lines 3 feet from and parallel to the edge of a lane. Left and right wheel paths are based on the direction of travel.

Where IP testing is required, identify areas of localized roughness. Areas of localized roughness must be identified using the ProVAL smoothness assurance analysis by calculating continuous IRI for each wheel path with a 25-foot interval.

Collect profiling data under AASHTO R 56 and analyze data using 250 mm and IRI filters.

Interpret references to "must-grinds" as "localized roughness" and "Pl₀" as "MRI" in the RSS for section 39.

39-1.12B Submittals

At least 5 business days before start of initial profiling or changing profiler or operator, submit:

- 1. IP certification issued by the Department. The certification must be not more than 12 months old.
- 2. Operator certification for the IP issued by the Department. The operator must be certified for each different model of IP device operated. The certification must be not more than 12 months old.
- 3. List of manufacturer's recommended test procedures for IP calibration and verification.

As an alternative to the IP and operator certification by the Department, an equivalent certification from the Texas Transportation Institute will be accepted if the certification is dated before July 1, 2013 and is not more than 12 months old.

Within 2 business days after cross correlation testing, submit ProVAL profiler certification analysis report for cross correlation test results performed on test section to the Engineer and to the electronic mailbox address:

smoothness@dot.ca.gov

Within 2 business days after each day of inertial profiling, submit profile data to the Engineer and to the electronic mailbox address:

smoothness@dot.ca.gov

The profiling data must include:

1. Raw profile data for each lane.

2. ProVAL ride quality analysis report for IRIs of left and right wheel paths of each lane. Submit in pdf file format.

3. ProVAL ride quality analysis report for MRIs of each lane. Submit in pdf file format.

- 4. ProVAL smoothness assurance analysis report for IRIs of left wheel path. Submit in pdf file format.
- 5. ProVAL smoothness assurance analysis report for IRIs of right wheel path. Submit in pdf file format.

6. GPS data file for each lane in GPS exchange. Submit in GPS eXchange file format.

7. Manufacturer's recommended IP calibration and verification tests results.

8. AASHTO IP calibration and verification test results including bounce, block, and distance measurement instrument (DMI).

Submit the raw profile data in unfiltered electronic pavement profile file (PPF) format. Name the PPF file using the following naming convention:

YYYYMMDD TTCCCRRR D L W S X PT.PPF

where:

YYYY = year

MM = Month, leading zero

DD = Day of month, leading zero

TT = District, leading zero

CCC = County, 2 or 3 letter abbreviation as shown in section 1-1.08

RRR = Route number, no leading zeros

D = Traffic direction as NB, SB, WB, or EB

L = Lane number from left to right in direction of travel

W = Wheel path as "L" for left, "R" for right, or "B" for both

S = Beginning station to the nearest foot (i.e., 10+20) or beginning post mile to the nearest hundredth (i.e., 25.06) no leading zero

X = Profile operation as "EXIST" for existing pavement, "INTER" for after prepaving smoothness correction, "PAVE" for after paving, and "CORR" for after final surface pavement correction

PT = Pavement type (i.e., HMA, RHMA, HMA-O, RHMA-O, RHMA-G, etc.)

Within 2 business days of performing straightedge measurements, submit areas requiring smoothness correction. Identify locations of smoothness correction by:

- 1. Location Number
- 2. District-County-Route
- 3. Beginning station or post mile to the nearest 0.01 mile
- 4. For correction areas within a lane:
 - 4.1. Lane direction as NB, SB, EB, or WB
 - 4.2. Lane number from left to right in direction of travel
 - 4.3. Wheel path as "L" for left, "R" for right, or "B" for both
- 5. For correction areas not within a lane:
 - 5.1. Identify pavement area (i.e., shoulder, weight station, turnout)
 - 5.2. Direction and distance from centerline as "L" for left or "R" for right
- 6. Estimated size of correction area

39-1.12C Inertial Profiler Calibration and Verification Tests

IP equipment must display a current certification decal with expiration date.

Operate the IP according to the manufacturer's recommendations and AASHTO R 57 at 1-inch recording intervals.

Notify the Engineer 2 business days before performing IP calibration and verification testing.

Conduct the following IP calibration and verification tests in the Engineer's presence each day before performing inertial profiling:

- 1. Block test. Verify the height sensor accuracy under AASHTO R 57, section 5.3.2.3.
- 2. Bounce test. Verify the combined height sensor and accelerometer accuracy under AASHTO R 57, section 5.3.2.3.2.
- 3. DMI test. Calibrate the accuracy of the testing procedure under AASHTO R 56, section 8.4.
- 4. Manufacturer's recommended tests.

Conduct cross correlation IP verification test in the Engineer's presence before performing initial profiling. Verify cross correlation IP verification test at least annually. Conduct 5 repeat runs of the IP on an authorized test section. The test section must be on an existing asphalt concrete pavement surface 0.1 mile long. Calculate a cross correlation to determine the repeatability of your device under Section 8.3.1.2 of AASHTO R 56 using ProVAL profiler certification analysis with a 3 feet maximum offset. The cross correlation must be a minimum of 0.92.

For each 0.1 mile section, your IRI values must be within 10 percent of the Department's IRI values. The Engineer may order you to recalibrate your IP equipment and reprofile. If your results are inaccurate due to operator error, the Engineer may disqualify your IP operator.

39-1.12D Acceptance Criteria

For areas that require pavement smoothness determined using an IP, the pavement surface must:

- 1. Have no areas of localized roughness with an IRI greater than 120 in/mi
- 2. Comply with the MRI requirements shown in the following tables for a 0.1 mile section:

HMA^a Pavement Smoothness Acceptance Criteria

HMA thickness	MRI requirement
> 0.20 foot	60 in/mi or less
≤0.20 foot	75 in/mi or less

^a Except OGFC

OGFC Pavement Smoothness Acceptance Criteria

OGFC placement on	MRI requirement		
New construction, or HMA overlay	60 in/mi or less		
Existing pavement	75 in/mi or less		
Milled surface	75 in/mi or less		

For areas that require pavement smoothness determined using a 12-foot straightedge, the HMA pavement surface must not vary from the lower edge of the straightedge by more than:

- 1. 0.01 foot when the straightedge is laid parallel with the centerline
- 2. 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
- 3. 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

Pavement smoothness may be accepted based on your testing in the absence of the Department's testing.

39-1.12E Smoothness Testing

39-1.12E(1) General

Notify the Engineer of start location by station and start time at least 2 business days before performing smoothness testing.

Remove foreign objects on the pavement surface before testing.

Mark the beginning and ending station on the pavement shoulder before testing. Stationing must be the same when profiling more than one surface.

39-1.12E(2) Inertial Profiler

While collecting the profile data to determine IRI, record the following locations in the raw profile data:

- 1. Begin and end of all bridge approach slabs
- 2. Begin and end of all bridges
- 3. Begin and end of all culverts visible on the roadway surface

Determine the MRI for each 0.1-mile fixed interval using the ProVAL ride quality analysis. Profile the left and right wheel paths of each lane. Calculate the MRI of each lane. A partial section less than 0.1 mile that is the result of an interruption to continuous pavement surface must comply with the MRI specifications for a full section. Adjust the MRI for a partial section to reflect a full section based on the proportion of a section paved.

Determine the areas of localized roughness using a continuous IRI for each wheel path with a 25-foot interval. Localized roughness greater than 120 in/mi must be corrected regardless of the IRI values of a 0.1-mile section.

Determine the MRI of the HMA, except OGFC. If the MRI of the final pavement surface is greater than the MRI acceptance requirement in the table titled "HMA Pavement Smoothness Acceptance Criteria" in section 39-1.12D, correct to the MRI acceptance requirement in the table.

The final surface of HMA must meet MRI acceptance requirements in the table titled "HMA Pavement Smoothness Acceptance Criteria" in section 39-1.12D before placing OGFC.

Determine the MRI of the OGFC. If OGFC MRI is greater than the accepted value in the table titled "OGFC Pavement Smoothness Acceptance Criteria" in section 39-1.12D, correct to the MRI acceptance requirement in the table.

39-1.12E(3) Straightedge

Measure areas that require 12-foot straightedge. If the straightedge measurement is greater than the accepted value in section 39-1.12D, correct to the acceptance requirement.

39-1.12F Smoothness Correction

If the final surface of the pavement does not comply with section 39-1.12D, grind the pavement to within specified tolerances, remove and replace it, or place an overlay of HMA. Do not start corrective work until your method is authorized.

Smoothness correction of the final pavement surface must leave at least 75 percent of the specified HMA thickness. If ordered, core the pavement at the locations determined by the Engineer. Coring, including traffic control, is change order work. Remove and replace deficient pavement areas where the overlay thickness is less than 75 percent of the thickness specified as determined by the Engineer.

If you choose to correct OGFC, the Engineer determines if the corrective method causes raveling. OGFC that is raveling must be removed and replaced.

Corrected HMA pavement areas must be uniform rectangles with edges:

- 1. Parallel to the nearest HMA pavement edge or lane line
- 2. Perpendicular to the pavement centerline

On ground areas not to be overlaid with OGFC, apply fog seal coat under section 37-2.

Where corrections are made within areas requiring testing with IP, reprofile the entire lane length with the IP device.

Where corrections are made within areas requiring testing with a 12-foot straightedge, retest the corrected area with the straightedge.

39-1.12G Prepaving Inertial Profiler

Section 39-1.12G applies to existing asphalt concrete areas receiving an HMA overlay or OGFC. Comply with section 39-1.12A-39-1.12C and 39-1.12E.

Before starting paving operations, perform prepaving IP measurements. Prepaving IP includes taking profiles of the existing pavement, analyzing the data with ProVAL to determine existing pavement IRI, MRI, and areas of localized roughness.

Identify areas of localized roughness greater than 140 in/mi.

Replace section 39-1.17 with:

39-1.17 DATA CORES

39-1.17A General

39-1.17A(1) Summary

This work includes taking data cores and submitting the information.

Three business days before starting coring, submit proposed methods and materials for backfilling data core holes.

39-1.17A(2) Submittals

Submit the following to the Engineer and to Coring@dot.ca.gov:

- 1. Summary of data cores taken
- 2. Photograph of each data core

For each data core, the summary must include:

- 1. Project identification number
- 2. Date cored
- 3. Core identification number
- 4. Type of materials recovered
- 5. Type and approximate thickness of unstabilized material not recovered
- 6. Total core thickness
- 7. Thickness of each individual material to within:
 - 7.1 1/2 inch for recovered material
 - 7.2 1.0 inch for unstabilized material
- 8. Location including:
 - 8.1. County
 - 8.2. Route
 - 8.3. Post mile
 - 8.4. Lane number
 - 8.5. Lane direction
 - 8.6. Station

Each data core digital photograph must include a ruler laid next to the data core. Each photograph must include:

- 1. Core
- 2. Project identification number
- 3. Core identification number
- 4. Date cored
- 5. County
- 6. Route
- 7. Post mile
- 8. Lane number
- 9. Lane direction

39-1.17B Materials

Not Used

39-1.17C Construction

Take data cores that include the completed HMA pavement, underlying base, and subbase material. Protect data cores and surrounding pavement from damage.

Take 4- or 6-inch-diameter data cores:

- 1. At the beginning, end, and every 1/2 mile within the paving limits of each route on the project
- 2. After all paving is complete
- 3. From the center of the specified lane

On a 2-lane roadway, take data cores from either lane. On a 4-lane roadway, take data cores from each direction in the outermost lane. On a roadway with more than 4 lanes, take data cores from the median lane and the outermost lane in each direction.

Each core must include the stabilized materials encountered. You may choose not to recover unstabilized material, but you must identify the material. Unstabilized material includes:

- 1. Granular material
- 2. Crumbled or cracked stabilized material
- 3. Sandy or clayey soil

After submitting the data core summary and photograph, dispose of cores.

Add to section 46-3.03A:

Expect difficult soil nail installation at Hecker Pass Soil Nail Wall Nos. 1, 2, 3, 4, 7, 8, 9, 10, and 11 due to the presence of the following conditions:

- 1. Caving soils
- 2. Steep and uneven terrain
- 3. Traffic control

Due to steep and uneven terrain, non-conventional construction methods including specialized drilling equipment, imported fill material, construction of a working platform from which to install soil nails, and additional shoring may be required for soil nail installation.

Replace "Reserved" in section 48-6 with: 48-6 TEMPORARY WOOD POLES

48-6.01 GENERAL

48-6.01A Summary

Section 48-6 includes specifications for constructing, maintaining, and removing temporary wood poles for the support of electrical hardware.

48-6.01B Definitions

temporary wood pole: Round timber pole and any attached structural components with no more than five years of anticipated service before removal or replacement.

Overhead conductor: A conductor or cable supported overhead.

Overhead bundle: An assembly consisting of a messenger wire, one or more overhead conductors, and one or more lashing wires.

48-6.01C Submittals

48-6.01C(1) General

Submit a letter of certification that certifies all components of the manufactured assemblies are used in compliance with the manufacturer's recommendations. If requested, (1) submit manufacturer's data for manufactured assemblies to verify manufacturer's recommendations or (2) perform tests demonstrating adequacy of the proposed assemblies.

Submit a letter of certification for all temporary structural support members with field welded splices. The letter must certify that all welding and NDT, including visual inspection, comply with the Contract and the welding standard shown on the shop drawings. The letter must be signed by an engineer who is registered as a civil engineer in the State. Submit the letter before installing messenger wires, tether wires, or luminaire arms.

Submit a welding certification for temporary structural support members with previously welded splices. The certification must:

- 1. Itemize the testing and inspection methods used
- 2. Include tracking and identifying documents for previously welded members
- 3. Be signed by an engineer who is registered as a civil engineer in the State
- 4. Be submitted before erecting the members

48-6.01C(2) Guy Wire Anchors

Submit the guy wire anchor manufacturer's product information and installation instructions. Do not install anchors unless authorized.

48-6.01D Quality Control and Assurance

48-6.01D(1) General

Reserved

48-6.01D(2) Welding and Nondestructive Testing

Welding must comply with AWS D1.1 or other recognized welding standard except (1) for previously welded splices and (2) if fillet welds are used where load demands are 1,000 lb or less per inch for each 1/8 inch of fillet weld.

Perform NDT on splices made by field welding at the job site. You may use UT or RT. Each field weld and any repair made to a previously welded splice must be tested. You must select locations for testing. The length of a splice weld where NDT is to be performed must be a cumulative weld length equal to 25 percent of the original splice weld length. The cover pass must be ground smooth at test locations. Acceptance criteria must comply with the specifications for cyclically loaded nontubular connections subject to tensile stress in clause 6 of AWS D1.1. If repairs are required in a portion of the weld, perform additional NDT on the repaired sections. The NDT method chosen must be used for an entire splice evaluation, including any repairs.

For previously welded splices, you must determine and perform all necessary testing and inspection required to certify the ability of the temporary structural support members to sustain the design stresses.

48-6.02 MATERIALS

48-6.02A General

Wire used for messenger wires, tether wires, and guy wires, must comply with ASTM A475, Utilities Grade, 7-wire strand.

Weights and diameters of overhead conductors must not exceed those shown by more than 5%.

Connection hardware for wires must provide termination efficiency factor of not less than 0.80.

Wood poles, push braces, and stubs must comply with Alliance for Telecommunications Industry Solutions O5.1.

Treat wood under AWPA U1, Use Category UC4B, Commodity Specification D.

Other steel components must comply with section 86.

48-6.02B Helical Anchors, Expanded Steel Plate Anchors, Cross Plate Anchors, and Expanding Rock Anchors

Fabricate helical anchors, expanded steel plate anchors, and cross plate anchors under section 55.

Fabricate attachable thimble eyes and expanding rock anchors from suitable ferrous material.

Welding must comply with AWS D1.1.

Fabricate as a continuous piece or as separate segments with mechanical connections between segments. Include integral thimble eye or include attachable thimble eye.

Galvanize all helical anchor parts under section 75.

Paint expanded steel plate anchors, cross plate anchors, and expanding rock anchors as specified for repairing damaged galvanized surfaces in section 75-1.05.

The final assembly must have (1) a minimum ultimate tension strength greater than the minimum required breaking strength of the guy wire and (2) a minimum ultimate torsion strength greater than twice the minimum installation torque.

48-6.02C Reuse of Materials and Relocation of Temporary Supports

You may reuse structural components and relocate temporary supports provided that the materials remain in acceptable condition for reuse except do not reuse:

- 1. Components of galvanized high-strength-bolt assemblies that have been or are required to be tensioned past snug tight
- 2. Galvanized high-strength cap-screws that have been or are required to be tensioned past snug tight
- 3. Tension control bolts

48-6.03 CONSTRUCTION

48-6.03A General

Install construction bracing as necessary to withstand all imposed loads during erection, construction, and removal of any temporary structural supports.

Install Type K temporary railing on both sides of vehicular openings through temporary structural supports. The Engineer may order you to install temporary railing at other temporary structural supports less than 12 feet from the edge of a traffic lane.

Install all temporary railing protecting temporary structural supports before erecting temporary structural supports. Do not remove temporary railing until authorized.

For overhead line construction not specifically covered in the contract documents, comply with Public Utility Commission General Order No. 95

48-6.03B Foundations

Verify the design soil parameters before starting construction of temporary wood poles.

Remove any accumulated water from the pole excavation prior to placing granular backfill at the bottom of the pole excavation. Thoroughly compact and level the granular backfill at the bottom of pole excavation prior to setting pole.

Backfill around poles with manufactured sand that is free of rocks or other deleterious material. Place the backfill material in 4-inch thick layers. Moisten and thoroughly compact each layer.

Install required pull boxes at least 2 feet clear from face of pole.

Remove accumulated water from the anchor excavation prior to placing expanded steel anchor. Expand the base of the expanded steel anchor prior to placing backfill. Place backfill around expanded steel anchor in 4-inch thick layers. Thoroughly compact each layer.

Protect foundations from softening and undermining.

48-6.03C Erection

If temporary structural supports are over or adjacent to roadways or railroads, all details of the temporary structural support system that contribute to horizontal stability and resistance to impact, except for connections in bracing, must (1) be installed at the time each element of the temporary structural support is erected and (2) remain in place until the temporary structural support is removed.

Suspend overhead conductors from messenger wire by continuous lashing wire. No spare overhead conductors are allowed unless described. Sag the overhead bundles to maintain required clearances and sags over the temperature range of -30 degrees F to 120 degrees F. Required sag is between 4.6 percent and 5.4 of horizontal span unless shown otherwise. Minimum vertical clearance over grade is 25 feet unless shown otherwise. Sag tether wires to maintain approximately uniform separation from their overhead bundles.

48-6.03D Attachments

If specific connection details are not shown, mount attachments under the manufacturer's written instructions and such that there is no loss of structural component cross section.

48-6.03E Damping

If at any time during service, the temporary wood poles exhibit excessive vibration, immediately install dampers. Dampers must be effective in mitigating the vibration and must not compromise the temporary wood poles or the supported hardware.

48-6.03F Removal

Remove temporary wood poles such that portions not yet removed remain stable at all times.

Remove temporary wood poles and helical anchors. Fill the void with excavated material or sand that is free of deleterious material. Place the backfill material in 4-inch thick layers. Moisten and thoroughly compact each layer.

Dispose of surplus excavated material uniformly along the adjacent roadway.

Dispose of temporary structural support materials and work debris.

48-6.03G Guy Wire Helical Anchors 48-6.03G(1) General

Not Used

48-6.03G(2) Installation Parameters

Use the minimum installation torque shown. You may request an alternative minimum installation torque based on a revised value for empirical torque factor.

For alternative minimum installation torque, use the following equation to calculate the installation torque:

 $T = Q_a(FS/K_t)$

where:

T= Minimum installation torque, lb-ft

FS= Factor of safety of 2.0

Qa= Minimum allowable tension capacity shown, lb

K= Empirical torque factor, 1/ft (inverse foot)

Include a geotechnical report sealed by a licensed geotechnical engineer with recommended values for empirical torque factor and alternative minimum installation torque with your request.

Do not start installation unless your alternative installation parameters are authorized.

Verify the installation parameters before the start of anchor installation.

48-6.03G(3) Installation

Install under the anchor manufacturer's written instructions and:

- 1. Do not install anchors underneath utilities or subsurface structures.
- 2. Maintain horizontal clearances as required by the Engineer.
- 3. Install to the minimum embedment length.
- 4. Continuously monitor and record torque during installation. If torque at the minimum embedment length is not equal to or greater than the minimum required, continue installation to greater embedment until the minimum installation torque is achieved for 2 continuous feet.

48-6.03G(4) Removal

After service is complete, remove using reverse torque. Fill the space left behind with excavated material or sand free of deleterious materials. Place the backfill material in 4-inch thick layers. Moisten and thoroughly compact each layer.

48-6.03H Expanded Steel Plate Anchors, Cross Plate Anchors, and Expanding Rock Anchors 48-6.03H(1) General

Not Used

48-6.03H(2) Installation

Install anchors in compliance with the manufacturer's instructions.

Locate and mark all substructures and utilities. Do not install anchors underneath subsurface utilities or structures.

48-6.03H(3) Removal

After service is complete, remove anchors to a depth of at least 3 feet below finished grade. Fill the space left behind with sand free of deleterious materials. Place the backfill material in 4-inch thick layers. Moisten and thoroughly compact each layer.

48-6.04 PAYMENT

Payment for providing temporary wood poles is included in the payment for the electrical bid item involved.

Add to section 49-1.03:

Expect difficult pile installation due to the conditions shown in the following table:

Pil	e location			
Bridge no. Support location		Conditions		
		Overhead utilities, steep terrain, local		
37E0065 ALL		instabilities may be present, and traffic control.		

Add to section 49-4.03B:

Drilled hole must be staggered.

Install and backfill the steel soldier piles in the same work shift that the holes are drilled.

Add to section 51-1.02I:

Expanded polystyrene must comply with section 51-2.01B(1).

57 WOOD AND PLASTIC LUMBER STRUCTURES

Add to section 57-2.02B:

The high density polyethylene (HDPE) shims must have ultraviolet inhibitors, be black in color, and comply with the following requirements:

Property	Test method	Requirement		
Melt Index	ASTM D 1238	0.24		
Density	ASTM D 1505	0.951		
Low Temperature				
Brittleness	ASTM D 746	-60 degrees C		
Tensile Strength	ASTM D 638	25.5 Mpa		

Add to section 59-2.01A:

Clean and paint the structures shown in the following table with the coating system specified:

Bridge name and number	Work description	Coating system
Hecker Pass Soldier Pile Wall No. 166, Bridge Number 37E0065	Clean, blast clean, and paint new steel soldier piling with undercoat and finish coat.	Zinc

Replace "Reserved" in section 59-2.01C(2) with:

Submit proof of each required SSPC-QP certification as specified in section 2-1.35. Required certifications are as follows:

1. AISC-420-10/SSPC-QP 3 (Enclosed Shop)

Add to section 59-9.01:

Instead of submitting proof of the certification complying with SSPC-QP 1, you may submit documentation showing compliance with section 3 of SSPC-QP 1.

CONTRACT NO. 04-2A2504 ADDED PER ADDENDUM NO. 3 DATED APRIL 3, 2014

59-11.02 MATERIALS

The stain must be Natina Steel from Natina Desert Varnish Solutions.

The quoted price for materials for the stain is \$9.00 per linear foot of galvanized surfaces to be stained, and includes delivery and sales tax.

You may obtain the stain from:

Natina Desert Varnish Solutions PO Box 4563 Palm Desert, CA 92261 (877) 762-8462

The quoted price is good until August 8, 2014.

Replace section 80-7 with: 80-7 TEMPORARY FENCE (TYPE FROG)

80-7.01 GENERAL

80-7.01A Summary

Section 80-7 includes specifications for installing, maintaining, and removing temporary fence (Type Frog).

80-7.01B Definitions

Not Used

80-7.01C Submittals

Submit a Certificate of Compliance for fence fabric, and climber barrier and brackets.

80-7.01D Quality Control and Assurance

Not Used

80-7.02 MATERIALS

Provide E-Fence, international orange EF48L, with climber barrier, 48 inches wide, as manufactured by ERTEC Environmental Systems, 1150 Ballena Blvd # 250, Alameda, CA 94501, phone (510) 521-0724, and include items as required by the manufacturer's specifications, updated 7/10/13, for exclusion of California red legged frog. Used materials may be used provided they meet the requirements of these special provisions.

The prices quoted by the manufacturer are:

- 1. \$2.65 per linear foot for fence fabric
- 2. \$0.07 per linear foot for 14 gage galvanized guide wire
- 3. \$0.0 per linear foot for ties
- 4. \$0.10 per linear foot for climber barrier brackets

The above prices are firm for orders placed until June 15, 2015.

Furnish E-Fence in 100-foot segments with 48-inch width.

80-7.03 CONSTRUCTION

80-7.03A General

Construct and maintain temporary fence (Type Frog) as specified in these special provisions and under the manufacturer's installation instructions, updated 7/10/13, for exclusion of California red legged frog, except for:

- 1. Install posts to a trench depth (min) of 6 inches.
- 2. Install posts every 8 feet and at each segment overlap.

Install temporary fence (Type Frog) as a temporary fence (Type ESA).

Perform temporary fence (Type Frog) construction activities from outside the environmentally sensitive area (ESA).

80-7.03B Maintenance

Inspect areas of concentrated rainwater run-off following each rainfall event and after each high-wind event. Repair immediately any damage to the temporary fence (Type Frog).

Correct rills, gullies and other evidence of concentrated runoff which has undercut the temporary fence (Type Frog). Repair or replace immediately the locations needing repair after identifying the deficiency.

80-7.04 PAYMENT

Not Used

Add to section 83-2.02D(1):

Where shown, paint bridge identification under section 51-1.03E(1)

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070030	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
2	080050	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
3	090100	TIME-RELATED OVERHEAD (WDAY)	WDAY	500		
4	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
5	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
6	120149	TEMPORARY PAVEMENT MARKING (PAINT)	SQFT	790		
7	BLANK					
8	120165	CHANNELIZER (SURFACE MOUNTED)	EA	1,080		
9	BLANK	p :				l r
10	026336	TEMPORARY SIGNAL SYSTEM (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
11	026337	TEMPORARY SIGNAL SYSTEM (LOCATION 2)	LS	LUMP SUM.	LUMP SUM	
12	026338	TEMPORARY SIGNAL SYSTEM (LOCATION 4) (STAGES 1 AND 2)	LS	LUMP SUM	LUMP SUM	
13	026339	TEMPORARY SIGNAL SYSTEM (LOCATION 4) (STAGES 3 AND 4)	LS	LUMP SUM	LUMP SUM	
14	128652	PORTABLE CHANGEABLE MESSAGE SIGN (LS)	LS	LUMP SUM	LUMP SUM	
15	129000	TEMPORARY RAILING (TYPE K)	LF	18,400		
16	129100	TEMPORARY CRASH CUSHION MODULE	EA	66		
17	026340	TEMPORARY CRASH CUSHION MODULE (ABSORB 350 TL2)	EA	58		
18	130100	JOB SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
19	130300	PREPARE STORM WATER POLLUTION PREVENTIONPLAN	LS	LUMP SUM	LUMP SUM	
20	130310	RAIN EVENT ACTION PLAN	EA	125	500.00	62,500.00

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	130320	STORM WATER SAMPLING AND ANALYSIS DAY	EA	75		
22	130330	STORM WATER ANNUAL REPORT	EA	4	2,000.00	8,000.00
23	130505	MOVE-IN/MOVE-OUT (TEMPORARY EROSION CONTROL)	EA	10		
24	130530	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SQYD	21,500	<u>-</u>	
25	130570	TEMPORARY COVER	SQYD	200		
26	130610	TEMPORARY CHECK DAM	LF	400		
27	130620	TEMPORARY DRAINAGE INLET PROTECTION	EA	74		
28	130640	TEMPORARY FIBER ROLL	LF	18,000		
29	BLANK					
30	130680	TEMPORARY SILT FENCE	LF	900		
31	130710	TEMPORARY CONSTRUCTION ENTRANCE	EA	5		
32	130730	STREET SWEEPING	LS	LUMP SUM	LUMP SUM	
33	130900	TEMPORARY CONCRETE WASHOUT	LS	LUMP SUM	LUMP SUM	
34	141103	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	20,400		
35	150662	REMOVE METAL BEAM GUARD RAILING	LF	230		
36	150668	REMOVE FLARED END SECTION	EA	6		
37	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	20,400		
38	150722	REMOVE PAVEMENT MARKER	EA	3,360		:
39	150742	REMOVE ROADSIDE SIGN	EA	4		
40	150809	REMOVE CULVERT (LF)	LF	290		

Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
150820	REMOVE INLET	EA	11		. "
150821	REMOVE HEADWALL	EA	4		
026341	RESET TEMPORARY CRASH CUSHION MODULE	EA	2		,
152370	RELOCATE MAILBOX	EA	4		
152430	ADJUST INLET	EA	2		
153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	9,350		
153221	REMOVE CONCRETE BARRIER	LF	320		
153247	REMOVE CONCRETE (MISCELLANEOUS) (CY)	CY .	3		
158210	RESET TEMPORARY RAILING (TYPE K)	LF	1,800	,	
160102	CLEARING AND GRUBBING (LS)	LS	LUMP SUM	LUMP SUM	
190101	ROADWAY EXCAVATION	CY	33,500		
192037	STRUCTURE EXCAVATION (RETAINING WALL)	CY	466		
192055	STRUCTURE EXCAVATION (SOIL NAIL WALL)	CY	7,713		
193013	STRUCTURE BACKFILL (RETAINING WALL)	CY	325		
193028	STRUCTURE BACKFILL (SOIL NAIL WALL)	CY	629		
200002	ROADSIDE CLEARING	LS	LUMP SUM	LUMP SUM	·
210010	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	6		
210270	ROLLED EROSION CONTROL PRODUCT (NETTING)	SQFT	87,700		
210300	HYDROMULCH	SQFT	239,000		
210350	FIBER ROLLS	LF	4,100	,	
	150820 150821 150821 150821 150821 152370 152430 153103 153221 153247 158210 160102 190101 192037 192055 193013 193028 200002 210010 210270	Code 150820 REMOVE INLET 150821 REMOVE HEADWALL 026341 RESET TEMPORARY CRASH CUSHION MODULE 152370 RELOCATE MAILBOX 152430 ADJUST INLET 153103 COLD PLANE ASPHALT CONCRETE PAVEMENT 153221 REMOVE CONCRETE BARRIER 153247 REMOVE CONCRETE (MISCELLANEOUS) (CY) 158210 RESET TEMPORARY RAILING (TYPE K) 160102 CLEARING AND GRUBBING (LS) 190101 ROADWAY EXCAVATION 192037 STRUCTURE EXCAVATION (RETAINING WALL) 192055 STRUCTURE EXCAVATION (SOIL NAIL WALL) 193013 STRUCTURE BACKFILL (RETAINING WALL) 193028 STRUCTURE BACKFILL (SOIL NAIL WALL) 200002 ROADSIDE CLEARING 210010 MOVE-IN/MOVE-OUT (EROSION CONTROL) 210270 ROLLED EROSION CONTROL PRODUCT (NETTING) 210300 HYDROMULCH	Code Measure 150820 REMOVE INLET EA 150821 REMOVE HEADWALL EA 026341 RESET TEMPORARY CRASH CUSHION MODULE EA 152370 RELOCATE MAILBOX EA 152430 ADJUST INLET EA 153103 COLD PLANE ASPHALT CONCRETE SQYD PAVEMENT SQYD 153221 REMOVE CONCRETE BARRIER LF 1532247 REMOVE CONCRETE (MISCELLANEOUS) CY (CY) CY 158210 RESET TEMPORARY RAILING (TYPE K) LF 160102 CLEARING AND GRUBBING (LS) LS 190101 ROADWAY EXCAVATION CY 192037 STRUCTURE EXCAVATION (RETAINING WALL) CY 193013 STRUCTURE EXCAVATION (SOIL NAIL WALL) CY 193028 STRUCTURE BACKFILL (RETAINING WALL) CY 200002 ROADSIDE CLEARING LS 210010 MOVE-IN/MOVE-OUT (EROSION CONTROL) EA 210270 ROLLED EROSION CONTROL PRODUCT (NETTING) SQFT	Code Measure Quantity 150820 REMOVE INLET EA 11 150821 REMOVE HEADWALL EA 4 026341 RESET TEMPORARY CRASH CUSHION MODULE EA 2 152370 RELOCATE MAILBOX EA 4 152370 RELOCATE MAILBOX EA 4 152430 ADJUST INLET EA 2 153103 COLD PLANE ASPHALT CONCRETE PAVEMENT SQYD 9,350 153221 REMOVE CONCRETE BARRIER LF 320 153247 REMOVE CONCRETE (MISCELLANEOUS) CY 3 (CY) RESET TEMPORARY RAILING (TYPE K) LF 1,800 160102 CLEARING AND GRUBBING (LS) LS LUMP SUM 190101 ROADWAY EXCAVATION (RETAINING CY 466 192037 STRUCTURE EXCAVATION (RETAINING WALL) CY 7,713 193013 STRUCTURE BACKFILL (RETAINING WALL) CY 325 193028 STRUCTURE BACKFILL (SOIL NAIL WALL) CY 629 200002	Toole

		U4-2A2304	11	I Tation akad	Linit Dring	Itom Total
Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	210420	STRAW	SQFT	109,000		
62	210430	HYDROSEED	SQFT	239,000		
63	210600	COMPOST	SQFT	239,000		
64	210630	INCORPORATE MATERIALS	SQFT	42,000		1
65	260203	CLASS 2 AGGREGATE BASE (CY)	CY	17,100		
66	290201	ASPHALT TREATED PERMEABLE BASE	CY	130		
67	390132	HOT MIX ASPHALT (TYPE A)	TON	13,800		
68	390134	HOT MIX ASPHALT (OPEN GRADED)	TON	2,580		
69	026342	CENTERLINE RUMBLE STRIP (HMA, GROUND-IN INDENTATION)	STA	93		
70	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	1,900		
71	395001	LIQUID ASPHALT, SC-70 (PRIME COAT)	TON	8		
72	397005	TACK COAT	TON	55		
73	460300	SOIL NAIL	LF	47,015		
74	BLANK					
75 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	210		
76	BLANK					
77 (F)	530200	STRUCTURAL SHOTCRETE	CY	891		
78 (F)	044447	SCULPTED SHOTCRETE	CY	1,472		
79	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	180		
.80	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	150		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	560252	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-FRAMED)	SQFT	100		
82	566011	ROADSIDE SIGN - ONE POST	EA	36		
83	566012	ROADSIDE SIGN - TWO POST	EA	4		
84	026343	STAINING GALVANIZED SURFACES	LF _.	180	,	
85	044448	PREPARE AND STAIN SCULPTED SHOTCRETE	SQFT	45,858		
86 (F)	598001	ANTI-GRAFFITI COATING	SQFT	10,947	·	
87	620060	12" ALTERNATIVE PIPE CULVERT	LF	380		
88	620100	18" ALTERNATIVE PIPE CULVERT	LF	3,330		
89	620140	24" ALTERNATIVE PIPE CULVERT	LF	25		
90	620180	30" ALTERNATIVE PIPE CULVERT	LF	170		
91	665003	6" CORRUGATED STEEL PIPE (.079" THICK)	LF	150		
92	667024	42" X 29" CORRUGATED STEEL PIPE ARCH (.109" THICK)	LF	8		
93	681103	3" PLASTIC PIPE (EDGE DRAIN)	LF	640		
94	681107	3" PLASTIC PIPE (EDGE DRAIN OUTLET)	LF	90		
95	700639	36" CORRUGATED STEEL PIPE INLET (.109" THICK)	LF	110		·
96	703233	GRATED LINE DRAIN	LF	460		
97	705307	12" ALTERNATIVE FLARED END SECTION	EA	15	<u> </u>	
98	705311	18" ALTERNATIVE FLARED END SECTION	EA	1		
99	705319	30" ALTERNATIVE FLARED END SECTION	EA	2		
100	705411	42" X 29" STEEL FLARED END PIPE ARCH SECTION	EA	2		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	719589	MINOR CONCRETE (BACKFILL)	CY ·	5		
102	721017	ROCK SLOPE PROTECTION (FACING, METHOD B) (CY)	CY	12		
103	721431	CONCRETE (CONCRETE APRON)	CY	80		
104	721810	SLOPE PAVING (CONCRETE)	CY	14		
105	729011	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	SQYD	38		
106 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	18,422		
107	750008	FRAME AND COVER	EA	6		
108 (F)	044449	MISCELLANEOUS METAL (SAFETY HOOK)	LB	3,819		
109	820107	DELINEATOR (CLASS 1)	EA	220		
110	820130	OBJECT MARKER	EA	17		,
111 (F)	839527	CABLE RAILING (MODIFIED)	LF	3,649		
112	839541	TRANSITION RAILING (TYPE WB)	EA	2		
113	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	2		
114	044450	CONCRETE BARRIER (TYPE 60D MODIFIED)	LF	3,649		
115	026344	CONCRETE BARRIER (TYPE 60C MODIFIED)	LF	480		
116	BLANK					
117	840501	THERMOPLASTIC TRAFFIC STRIPE	LF	51,200		
118	840506	8" THERMOPLASTIC TRAFFIC STRIPE	LF	410		
119	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	610		
120	840523	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)	LF	480		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	840666	PAINT PAVEMENT MARKING (2-COAT)	SQFT	640		
122	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	4,130		
123	860090	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	LUMP SUM	LUMP SUM	
124	026345	MODIFY VARIABLE MESSAGE SIGN	LS	LUMP SUM	LUMP SUM	
125	BLANK					
126	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	LF	52,600		
127	027319	TEMPORARY SIGNAL SYSTEM (LOCATION 3)	LS	LUMP SUM	LUMP SUM	
128	027320	TEMPORARY FENCE (TYPE FROG)	LF	19,200		
129	150711	REMOVE PAINTED TRAFFIC STRIPE	LF	55,100		
130	150712	REMOVE PAINTED PAVEMENT MARKING	SQFT	790		
131 (F)	192049	STR. EXCAVATION (SOLDIER PILE WALL)	CY	17		
132 (F)	193029	STR. BACKFILL (SOLDIER PILE WALL)	CY	37		
133 (F)	193116	CONCRETE BACKFILL (SOLDIER PILE WALL)	CY	104		
134 (F)	193119	LEAN CONCRETE BACKFILL	CY	11		
135	390011	PREPAVING INERTIAL PROFILER	LS	LUMP SUM	LUMP SUM	
136	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
137	490316	STEEL SOLDIER PILE (HP14X73)	LF	660		
138	490403	30" DRILLED HOLE	LF	614		
139 (F)	510072	STRUCTURAL CONCRET, BARRIER SLAB	CY	87	1	
140 (F)	575004	TIMBER LAGGING	MFBM	3.6		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141	590120	CLEAN AND PAINT STEEL SOLDIER PILING	LS	LUMP SUM	LUMP SUM	
142 ⁻ (F)	839725	CONCRETE BARRIER (TYPE 736)	LF	170		
143	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID:	•	\$	•